

CLAIMS

1. A transgenic nonhuman animal or stem cell comprising a diploid genome comprising a transgene encoding a heterologous APP polypeptide comprising the Swedish mutation
5 wherein the amino acid residues at positions corresponding to positions 595 and 596 in human APP⁶⁹⁵ are asparagine and leucine, respectively.

2. A transgenic nonhuman animal of claim 1, wherein
10 the animal is murine.

3. A transgenic nonhuman animal of claim 2 wherein the transgene comprises pNSEAPPswΔ3' or pNSEAPPsw.

4. A transgenic nonhuman animal of claim 3, wherein
15 the transgene is nonhomologously integrated.

5. A transgenic nonhuman animal of claim 3, wherein said transgenic nonhuman animal expresses a human APP polypeptide
20 comprising the Swedish mutation.

6. A transgenic nonhuman animal of claim 1, wherein the heterologous APP polypeptide comprising the Swedish mutation is expressed under the transcriptional control of a neural-specific enolase promoter.
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7. A transgene comprising a polynucleotide encoding a a human APP polypeptide comprising the Swedish mutation operably linked to a transcription control element capable of
30 producing transcription of the human APP polypeptide in a host transgenic animal.

8. A transgene of claim 7, wherein the transcription control element is rat neural-specific enolase promoter.
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9. A transgene of claim 8, wherein the transgene comprises pNSEAPPswΔ3' or pNSEAPPsw.

10. Antibodies specific for the amino-terminal fragment of Swedish β -amyloid precursor protein.